

BRYOLOGICAL NOTES

II. TWO MOSSES NEW TO ICELAND

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Present knowledge of the moss-flora of Iceland rests substantially upon the work of Grönlund,* who besides his own collecting was at considerable pains to bring together previous collections and publications and subjected everything to a salutary critical revision, relying upon the assistance of such bryologists as Zetterstedt, Berggren, Lindberg and C. Jensen. These lists are supplemented somewhat by notes of Helgi Jónsson contained in oecological papers on the flora of various parts of the island,† his bryophytes also having passed through the hands of C. Jensen. The Botany of Iceland, edited by Rosenvinge and Warming, of which two parts have already appeared,‡ promises soon a part on the bryophytes by A. Hesselbo. My own collections were made in the summer of 1914. I have already§ called attention to an hepatic not hitherto known from the island. The two following mosses are likewise additions, I trust of sufficient interest to justify this note.

Dicranum Anderssonii (Wich.) Schimp. This species was first recognized by Wichura among his collections from Lapland (Swedish) in 1859|| and is distinguished from its nearest relatives, *D. fulvellum* and *D. hyperboreum*, and for that matter from all other northern *Dicrana* by its very short seta, the capsule not

* Bidrag til Oplysning om Islands Flora. 2. Hepaticae og Musci (Botanisk Tidsskrift, 2 Raekke, 3 Bind. 1873); Islands Flora. 1881, Tillaeg, 144ff.; Afsluttende Bidrag til Oplysning om Islands Flora (Bot. Tidsskr., 14 Bind, 4 Hefte; 1885); Tillaeg til Islands Kryptogamflora (Bot. Tidsskr., 20 Bd., 1 Hefte. 1895). a list of Kindberg (1888) often cited in bibliographies rests, so far as Iceland is concerned, on Grönlund.

† Studier over Öst-Islands Vegetation (Bot. Tidsskr., 20 Bd., 1 Hefte. 1895); Floraen paa Snaefellsnaes og Omegn (Bot. Tidsskr., 22 Bd., 2 Hefte. 1899) with Vegetationen paa Snaefellsnes (Vidensk. Meddel. fra den Naturhist. Foren. Kjöbenhavn. 1900); Vegetationen i Syd-Island (Bot. Tidsskr., 27 Bd., 1 Hefte. 1905).

‡ I, 1. The Marine Algal Vegetation by Helgi Jónsson. 1912; I, 2. An Account of the Physical Geography by Th. Thoroddsen. 1914.

§ The Bryologist, XVIII, 51f. 1915.

|| Flora, XLII, 432 with Tab. VII, Fig. 3-8.

projecting beyond the tips of the perichaetial leaves. Brotherus* gives no further localities, Williams† adding a North American one in Port Wells, Alaska, where it was collected by Trelease and identified by Cardot and Thériot.§ Paris‡ had in the meantime included a couple other interesting localities: the Faroe Islands and the isolated Arctic island of Jan Mayen. Authority for the first of these was C. Jensen, who reported it|| from a single locality on the island of Vaagö. His two good plates represent various details both of his own plants and the original or type material of Wichura. The inclusion of Jan Mayen is explained by the citation as a synonym of "*Grimmia Jan Mayensis* Arnell, Bihang till K. Sv. Vet.-Akad. Handl., Bd. 26, Afd. III, n. 13, t. V et VI."¶ Paris's citation is garbled, as is frequently the case. The author of this species was P. Dusén, who acknowledges assistance of both Arnell and C. Jensen in determining his plants, but takes entire responsibility for the new name. Plates V and VI belong not to this paper, but to the work last mentioned. Dusén's article is however accompanied by an unnumbered plate and a text-figure, both purporting to illustrate his *Grimmia Jan Mayensis*. Of these the latter, evidently executed by Dusén himself, may well represent *Dicranum Anderssonii*,¶ the plate executed by another ("Th. Ekblom del.") is less clearly identified.

I can report finding the species in Iceland in the summer of 1914, first on the eastern wall of the gorge Almannagjá leading down to Thingvellir (July 25), later on a lava-block in the vicinity of the bridge over the glacial river Ölfusá near the farmstead Selfoss (Aug. 7). I find it also mixed with a specimen of *Lophozia alpestris* taken from the lava by Hafnarfjörður (Aug. 8). All

* Engler und Prantl, Natürl. Pflanzenfam., I, 3, 326. 1901; cf. however 453. 1902.

† North American Flora, XV, 116. 1913.

‡ Harriman Alaska Series of the Smithsonian Institution, V, 257ff. 1910, reprinted from Proceedings of the Washington Academy of Sciences, IV, 297ff. 1902.

§ Index bryologicus, 2 ed., II, 35. 1904.

|| Botany of the Faeröes, 158f, with plates V and VI. 1901.

¶ Pages 13ff. 1900.

**Dusén was inclined to admit the synonymy of his new species after his attention had been called to the fact by Hagen; cf. Bihang till K. Sv. Vet.-Akad. Handl. 27, Afd. III, n. 1, 57. 1901.

of these stations represent in a general way the southwestern part of the island, but are at very considerable distances from one another. One rather wonders that it has not been collected there before. The related *D. fulvellum* has long been known from Iceland, was indeed collected there by Mörch before 1825, if the *Dicranum Moerkianum* of Hornschuch* is correctly referred to this species.† I also found what I take to be *D. fulvellum* in the Almannagjá, but not growing with the other species.‡ The two seemed to hold their characters entirely well in the places where each was growing. They were fruiting abundantly, as was *D. Anderssonii* also in the other two stations. My specimens were all found growing upon post-glacial basaltic lava.

Pleuridium alternifolium Brid. This plant was found in a single spot growing on thin soil formed on the lava-field about Hafnarfjörður (July 23). Its case is quite the opposite of that of the preceding Arctic plant, as this is so far as I know decidedly its northernmost station, in fact the most northerly for any species of *Pleuridium*. It was a surprise to find it so near the Arctic Circle and I doubt that it will prove to be at all generally distributed in Iceland. The impression most strongly made upon me by my observations upon the Icelandic moss-flora was that one has to do here not with a relict-flora, as in the familiar case of our glacial relicts and perhaps also in the case of the so-called "Atlantic species" on parts of the west coasts of Ireland, Scotland, Norway and in the Faroes, but that it was rather clearly a question of an immigrant flora, species of which had been able to establish themselves there within relatively recent times. The flora is on the whole a rich one, interesting no less in the species lacking than in those actually found, and many questions of distribution in their relation to wind and ocean-currents, pre- and post-glacial lavas of different chemical constituency, etc., represent interesting problems for investigation.

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* Flora, VIII, 78f. 1825.

† The plate 2002 in Flora Danica, of which Mr. R. S. Williams has kindly made me a tracing, is not identifiable as *D. fulvellum*; cf. Lindberg's note on this plate in his *Revisio critica iconum*. 1871.

‡ Grönlund also speaks of finding *D. fulvellum* in this place (*Tidsskrift f. populæra Fremstillinger af Naturvidenskaben*, 5 R., IV, 345. 1877).